

# Conservation Science Webinar Series

## "The Science behind the News"

The National Conservation Training Center's Conservation Science Webinar Series attempts to cut through the spin and rhetoric by providing the science behind conservation issues in the news.



**Wednesday, August 21st, 2013**

**2:00pm – 3:00pm eastern time**

### **Are Native Bees Really Declining? The Theory, the Data, the Program**

**Presented by:**

**Dr. Gretchen LeBuhn**, Department of Biology, San Francisco State University

**Sam Droege**, U.S. Geological Survey, Patuxent Wildlife Research Center

Registration  
Instructions  
Below



Photo credit: Ryan Hagerty (USFWS)

**Description:** Recently there has been considerable concern about declines in bee communities in agricultural and natural habitats. The value of pollination to agriculture, provided primarily by bees, is > \$200 billion/year in the United States, and in natural ecosystems it is thought to be even greater. However, until recently no monitoring program existed to accurately detect declines in abundance of insect pollinators; thus, it is difficult to quantify the status of bee communities or estimate the extent of declines. We used data from eleven multiyear studies of bee communities to devise a program to monitor pollinators at regional, national, or international scales. These studies used seven different methods for sampling bees and represented three different continents. We estimated that a monitoring program with 200-250 sampling locations each sampled twice over 5 years would provide sufficient power to detect small (2-5%) annual declines in the number of species and in total abundance and would cost US \$2,000,000. To detect declines as small as 1% annually over the same time interval would require >300 sampling locations. Given the role of pollinators in food security and ecosystem function, we recommend establishment of integrated regional and international monitoring programs to detect changes in pollinator communities.

**Note:** Captioning Services are available. All webinars are recorded and posted on the webinar archive.

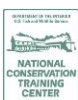
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([marilyn\\_williams@fws.gov](mailto:marilyn_williams@fws.gov))



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